identifying all other available nodes, and remote devices attached to each of said nodes, on said network;

representing one or more of said remote devices such that said one or more of said remote devices are available to a local host;

encapsulating an input/output (I/O) phase between said local host and said one or more of said remote devices; and

repeating encapsulating said I/O phase for a subsequent I/O phase.

45. The method of Claim 44, wherein said input/output phase comprises a command phase, a data phase and a response phase.

46. The method of Claim 44, wherein encapsulating said I/O phase comprises encapsulating an individual command for a Fibre Channel protocol.

47. The method of Claim 46, wherein said individual command is a task management function, an error recovery function or other I/O processing function.

48. The method of Claim 44, wherein encapsulating said I/O phase comprises encapsulating an individual command for a SCSI protocol.

49. The method of Claim 48, wherein said individual command is a task management function, an error recovery function or other I/O processing function.

50. The method of Claim 44, wherein each of said

two or more nodes is communicatively connected to a Storage Area Network ("SAN").

51. The method of Claim 50, wherein each of said two or more nodes is an interface between its SAN and said packet-based network.

52. The method of Claim 50, wherein one of said SANs is a back-up library.

53. The method of Claim 44, wherein each of said nodes is a Fibre-Channel-to-SCSI router.

54. The method of Claim 44, wherein said first protocol is a Fibre Channel SCSI protocol.

55. The method of Claim 44, wherein said network is an Asynchronous Transfer Mode ("ATM") network, an Ethernet network, an IP network or a SONET network.

56. The method of Claim 44, wherein said network is a wide area network ("WAN").

57. The method of Claim 44, wherein said network is a dedicated link.

58. The method of Claim 44, wherein said network is a switched network.

59. The method of Claim 44, wherein representing further comprises:

mapping a local address for each of said one or more

of said remote devices to a corresponding intermediate address; and

mapping said corresponding intermediate address into a corresponding remote address at another node.

60. The method of Claim 44, wherein encapsulating further comprises:

converting said I/O phase from said first protocol to a second protocol associated with said network; and

converting back said I/O phase to said first protocol at a remote node.

61. The method of Claim 60, wherein said second protocol is an Asynchronous Transfer Mode ("ATM") protocol, an Ethernet protocol, an IP protocol or a SONET protocol.

62. The method of Claim 44, wherein identifying further comprises dynamically discovering all other available nodes, and said remote devices attached to said nodes, through a common server.

63. The method of Claim 62, wherein at least one of said two or more nodes is designated as said common server.

64. The method of Claim 62, wherein said common server is separate from said nodes.

65. The method of Claim 62, further comprising detecting a heartbeat message for determining, at said common server, if a node drops from said network.

66. The method of Claim 44, wherein said network is

any packet-based network that allows data packets to flow between nodes.

67. The method of Claim 44, wherein different ones of said two or more nodes can be communicatively connected to a SAN using different network protocols.

68. The method of Claim 44, wherein said first protocol is a SCSI protocol.

69. A computer readable medium having software embedded therein for using a system for encapsulating a first protocol for a data transmission between two or more nodes across a network, the computer readable medium comprising:

instructions for identifying all other available nodes, and remote devices attached to each of said nodes, on said network;

instructions for representing one or more of said remote devices such that said one or more of said remote devices are available to a local host;

instructions for encapsulating an input/output (I/O) phase between said local host and said one or more of said remote devices; and

instructions for repeating said instructions for encapsulating for a subsequent I/O phase.

70. The computer readable medium of Claim 69, wherein said input/output phase comprises a command phase, a data phase and a response phase.

71. The computer readable medium of Claim 69, wherein each of said nodes comprises a corresponding computer

readable medium comprising such software including such instructions.

72. The computer readable medium of Claim 69, wherein said instructions for encapsulating said I/O phase comprise instructions for encapsulating an individual command for a Fibre Channel protocol.

73. The computer readable medium of Claim 72, wherein said individual command is a task management function, an error recovery function or other I/O processing function.

74. The computer readable medium of Claim 69, wherein said instructions for encapsulating said I/O phase comprise instructions for encapsulating an individual command for a SCSI protocol.

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75. The computer readable medium of Claim 74, wherein said individual command is a task management function, an error recovery function or other I/O processing function.

76. The computer readable medium of Claim 69, wherein the system further comprises a Storage Area Network ("SAN") communicatively connected to each of said two or more nodes.

77. The computer readable medium of Claim 76, wherein each of said two or more nodes is an interface between its SAN and said packet-based network.

78. The computer readable medium of Claim 76, wherein at least one of said SANs is a back-up library.

79. The computer readable medium of Claim 69, wherein each of said nodes is a Fibre-Channel-to-SCSI router.

80. The computer readable medium of Claim 69, wherein said first protocol is a Fibre Channel SCSI protocol.

81. The computer readable medium of Claim 69, wherein said network is an Asynchronous Transfer Mode ("ATM") network, an Ethernet network, an IP network or a SONET network.

82. The computer readable medium of Claim 69, wherein said network is a wide area network ("WAN").

83. The computer readable medium of Claim 69, wherein said network is a dedicated link.

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84. The computer readable medium of Claim 69, wherein said network is a switched network.

85. The computer readable medium of Claim 69, wherein said instructions for representing further comprise:

instructions for mapping a local address, for each of one or more of said remote devices attached to a node, to a corresponding intermediate address; and

instructions for mapping each of said corresponding intermediate addresses into a corresponding remote address at another node.

86. The computer readable medium of Claim 69, wherein said software further comprises:

instructions for converting said I/O phase from said first protocol to a second protocol associated with said network; and

instructions for converting back said I/O phase to said first protocol at a remote node.

87. The computer readable medium of Claim 86, wherein said second protocol is an Asynchronous Transfer Mode ("ATM") protocol, an Ethernet protocol, an IP protocol or a SONET protocol.

88. The computer readable medium of Claim 69, wherein the system further comprises a common server, and wherein said instructions for identifying further comprise instructions for dynamically discovering all other available nodes, and said remote devices attached to said nodes, through said common server.

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89. The computer readable medium of Claim 88, wherein at least one of said two or more nodes is designated as said common server.

90. The computer readable medium of Claim 88, wherein said common server is separate from said nodes.

91. The computer readable medium of Claim 88, further comprising instructions for detecting a heartbeat message to determine, at said common server, if a node drops from said network.

92. The computer readable medium of Claim 69, wherein said network is any packet-based network that allows